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Inaugural Essay

Read March 1825

on

Bilious Colic

by

Smith. M. Price

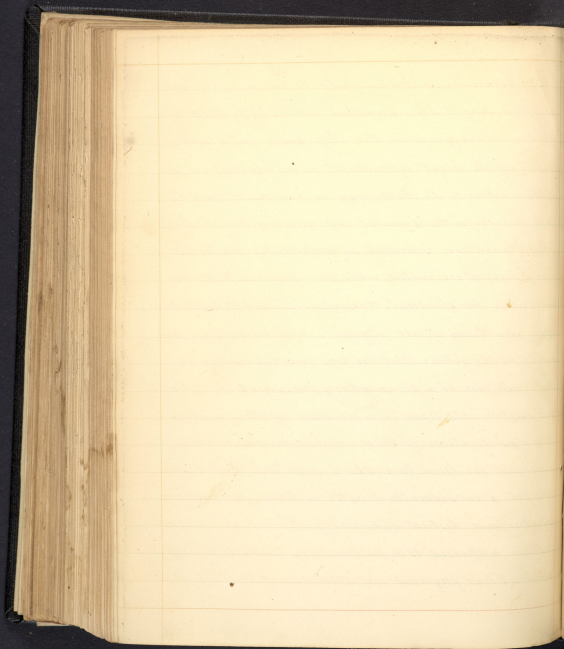
of

Pennsylvania.

Philadelphia Nov 5th 1824.

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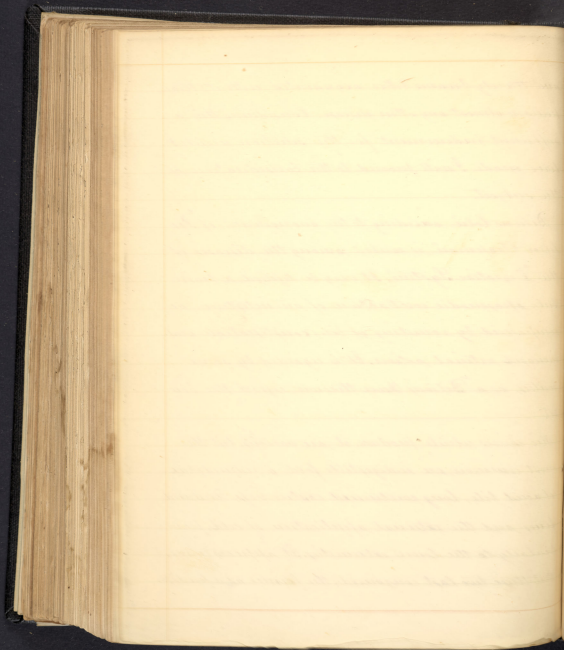
So common is Bilious-Colic to our country, and so often has it been described, not only by those who hold a lower grade in the Profession, but also by some of its most respectable members, that no addition either to its Pathology or Treatment can be expected from the limited experience of the student. This observation is indeed so applicable to almost every subject connected with our science, that the candidate for Medical Honours, seldom attempts to offer any thing at all original, or if he does, he generally finds, either that he has been led astray by the deception of a momentary imagination, or that his sentiments have been recorded by other writers. The consideration of these circumstances, renders it difficult for him to make a selection. But having for a considerable length of time, pursued my studies in a district of country, the inhabitants of which appeared to be particularly liable to this affection, I had frequent opportunities of treating it.



and thereby became better acquainted with it, than perhaps almost any other disease. Considering this a sufficient inducement for the selection which I have made, I will proceed to the consideration of the subject.

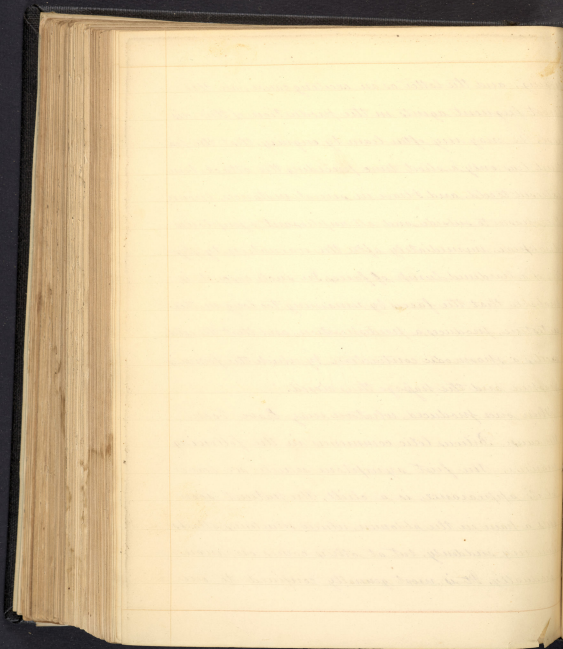
"Bilious Colic," according to the arrangement of Professor Chapman, is ranked among the diseases of the Digestive System. It may be defined, a painful, spasmodic contraction of an intestine, accompanied by vomiting of bile, constipation and increased arterial action. It is regarded by some writers, as a "Bilious Fever thrown upon the bowels."

The causes which produce it are various, but the most common, are indigestible food, a redundancy of acid bile, long continued costiveness, hardened faeces and the external application of cold, particularly to the lower extremities. It appears to me, that these two last conjoined, the former as a predis-

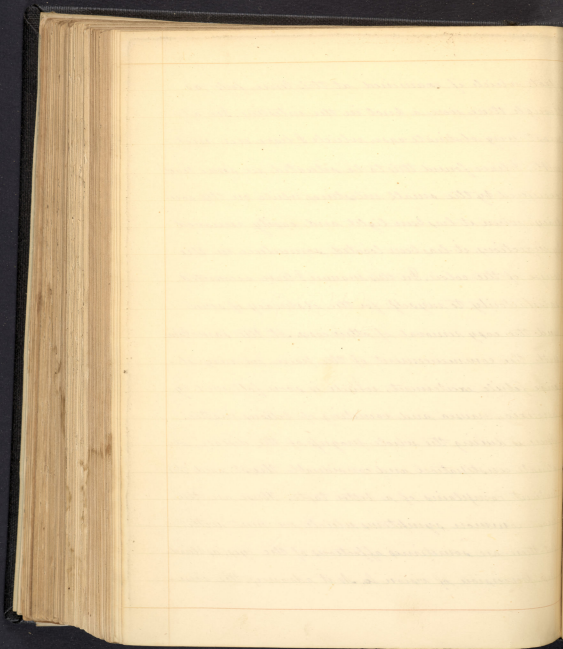


posing, and the latter as an exciting cause, are the most frequent agents in the production of this disease. We may very often learn by enquiry, that the patient has only a short time preceding the attack, been exposed to cold, and I have in several instances, known the spasm to subside, and all unpleasant symptoms disappear, immediately after the evacuation by glysters of a hardened lump of faeces. In such cases it is probable that the faeces by remaining too long in the intestine, produces a predisposition, and that the cold excites a spasmodic contraction, by which the former is grasped and the propage thus closed.

When once produced, whatever may have been the cause, Bilious colic commences in the following manner. The first symptom which we have of its appearance, is a chill. The patient soon feels a pain in the abdomen, which sometimes attacks him very suddenly, but at others comes on more gradually. It is most generally confined to one

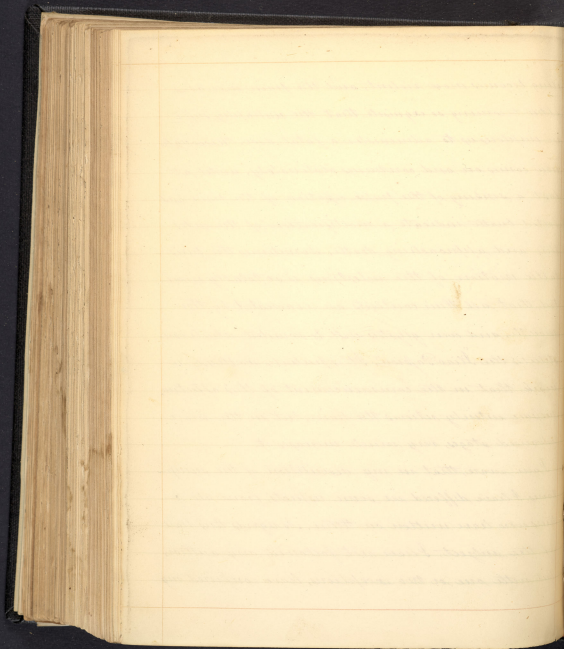


spot, which if examined at this time, feels as though there were a knot in the intestine. In almost every obstinate case, which I have ever met with, I have found this to be situated in some part occupied by the small intestines, while on the contrary, when it has been light and easily removed by injections, it has been located somewhere in the course of the colon. In this manner I have accounted satisfactorily to myself, for the obstinacy of some and the easy removal of other cases. At the same time with the commencement of the pain, we may observe febrile excitement, which is soon followed by anorexia, nausea and vomiting of bilious matter. There is during the whole progress of the disease, obstinate constipation and considerable thirst, and the patient complains of a bitter taste. These are the most common symptoms which we meet with, but there are sometimes affections of the eyes, or blindness, prostration of vision &c. As it advances, the con-



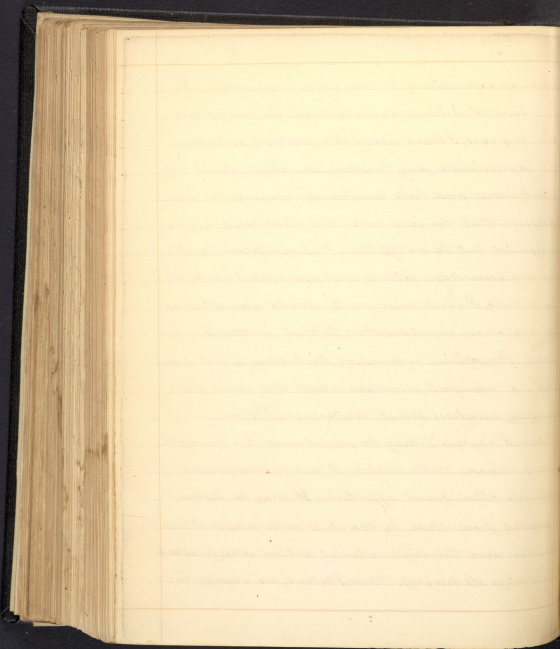
ling becomes more violent, and the pain increases, often becoming so exquisite, that the unhappy sufferer implores us to administer a fatal dose. Hence we now come, one and continues obstinately, until, at last, a sinking of the pulse, cessation of the pain and forced breath indicate a mortification of the intestine and approaching death. Sometimes the peristaltic motion of the intestines is so totally inverted, that all their contents are evacuated by the mouth, and even glysters will be vomited, which constitutes the "Niac Dagon". It is perhaps worthy of remark, that in the commencement of this affection, opium entirely relieves the pain, but in the more advanced stages, very much increases it.

I am aware, that in my description of the symptoms, I have differed in some respects, from all others who have written on them. As regards this part of the subject, I have not followed any author, but with one or two exceptions, have confined my



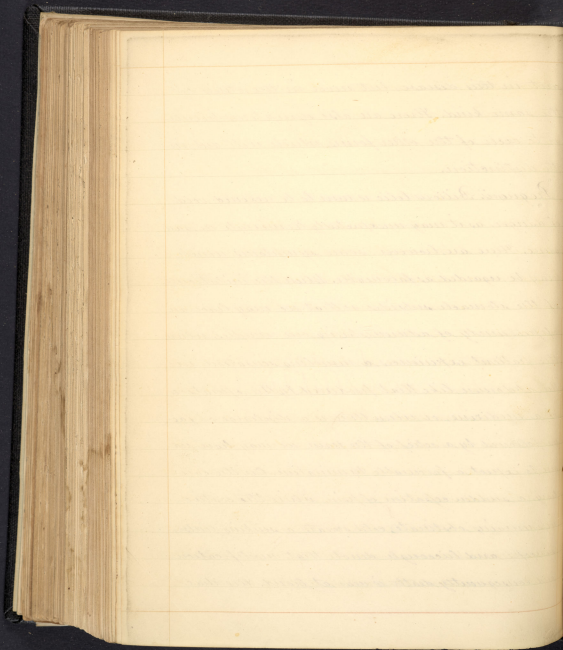
remarks exclusively to my own observation. In every case of Bilious Colic which has come under my care, I have asked the patient whether he experienced any twisting sensation about the umbilicus, and have uniformly received the same answer that he did not. This fact may appear singular, but is no less true. This symptom, as far as my knowledge extends is always present in Flatulent Colic. I do not presume to uphold any opinion of my own, in opposition to that of the experienced Physician, or to assert that there is not generally a painful sensation about the navel, but merely mention what has occurred to me.

The "Diagnosis" may be stated in a few words. The only diseases with which it can be confounded, are the other bowel affections. It may be distinguished from these, by the chill with which it commences, and the high arterial action which attends it during its progress. These, I believe, are always pre-



met in this disease, but never in the others of the same kind. There are also symptoms peculiar to each of the other forms, which will aid in the distinction.

Pneumia Biliosa is said to be reckoned void of danger, as it may unexpectedly terminate in gangrene. There are, however, some symptoms which may be regarded as favourable. When the irritation of the stomach subsides, so that we may have an opportunity of administering our remedies, when the patient experiences a rumbling sensation in the abdomen, like that produced by the operation of a medicine, or when there is a discharge of feces, followed by a relief of the pain, we may have reason to expect a favourable termination. On the contrary, a sudden cessation of pain, while the costiveness remains obstinate; cold sweats, a sinking pulse, syncope and hiccup denote that mortification and consequently death is near at hand. The iliac



passion is also to be accounted highly dangerous.

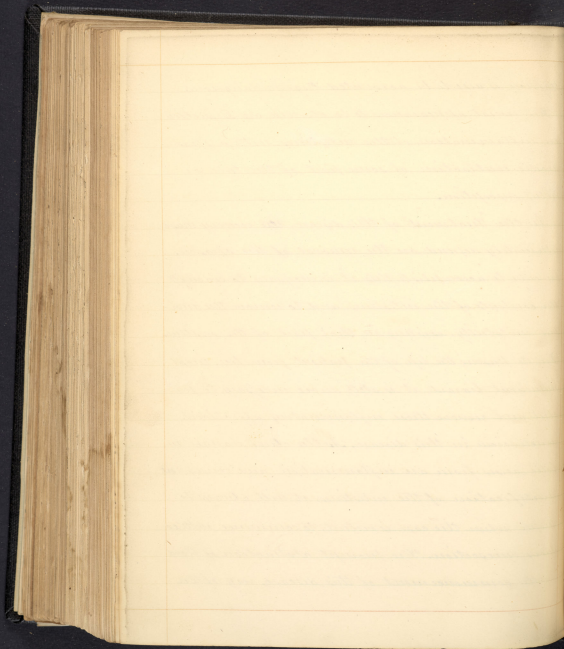
The usual appearances to be observed on Dissection are inflammation of the intestines, with a spasmodic contraction of some part of the tube or intussusception.

In the Treatment of this disease, the recovery must ultimately depend on the removal of the spasm.

In order to accomplish this, it is necessary to evacuate the contents of the intestines, and to remove the morbid irritability existing in that part of the system.

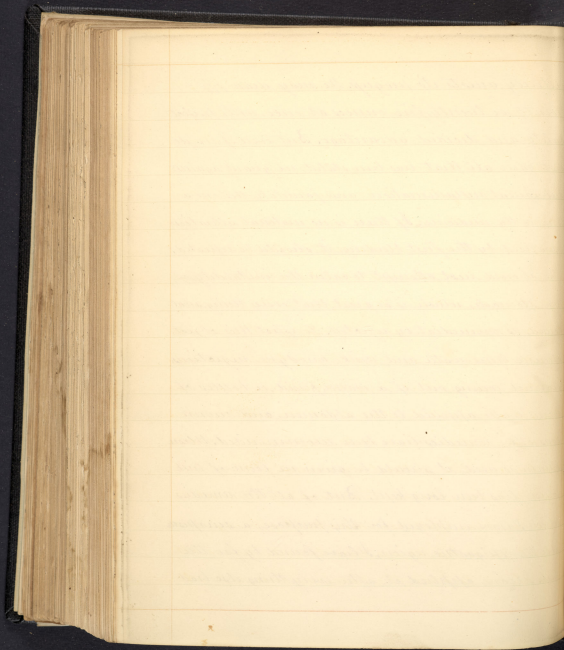
But to preserve the life of the patient from the most imminent hazard, it is still more necessary to prevent and remove those inflammatory affections, which occur in this disease. As the chief danger in

Colic arises from an inflammation and consequent mortification of the intestines, it will always be proper when the case is violent, to commence with copious evacuation. The prompt abstraction of blood in the commencement of this disease, very often



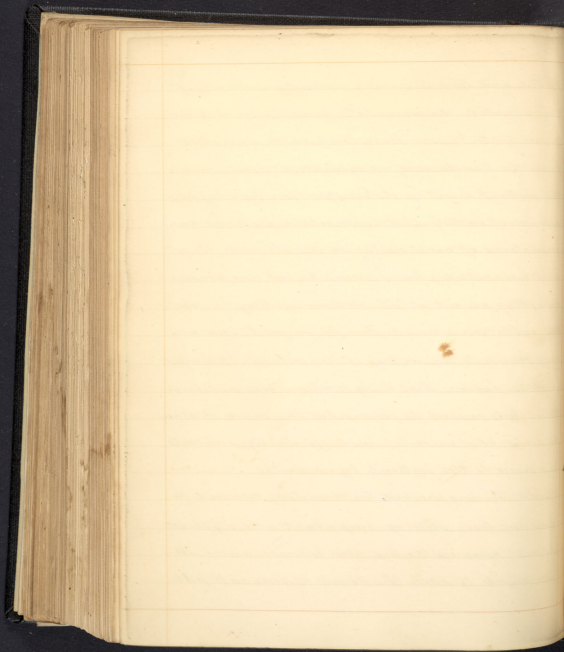
actively arrests its progress. We may draw off twenty, or twenty-five ounces at once, with perfect safety and decided advantage. But even if we do not gain all that has been stated, we guard against subsequent inflammation, and facilitate the operation of the medicines. If there is no material alteration produced by the first bleeding, it should be repeated.

We should next attempt to calm the irritability of the stomach, which is so great, that every thing swallowed, is immediately rejected. To effect this object, opium, lime-water and milk, anodyne injections, flannel wrung out of a warm fluid, or bottles of warm water applied to the abdomen, and numerous other remedies have been recommended. When opium is used, it should be given in form of pill which has been long kept. But of all the remedies which I have employed for this purpose, a sinapism over the epigastric region, I have found by far the best. I have applied it, after every thing else had



failed, and have invariably succeeded with it. At this juncture, the warm bath may be advantageously resorted to. It sometimes produces an evacuation from the bowels, and consequently a recovery, while the patient is yet in it. Emetics have been highly spoken of in this disease. Where there are large accumulations of acid matter in the stomach, they will undoubtedly prove serviceable, but as a general rule, they are not at all applicable. They increase the irritation which is already too great, and add very much to the distress of the patient. It is urged in their favour, that they produce general relaxation. This cannot be denied, but the same end can be accomplished much more effectually, and with less pain to the patient by enemata.

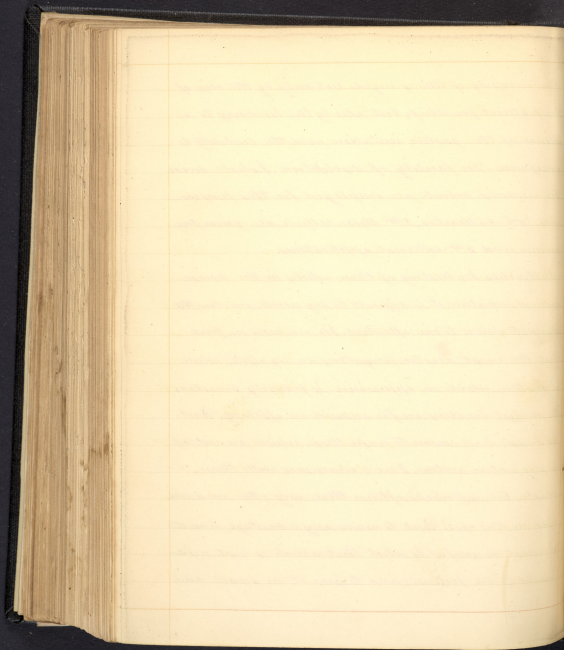
After having checked the vomiting incident to Colic, we have still an important and difficult object before us. We are now to make use of all our efforts, to open the bowels as soon as possible.



The necessity of this is urged, not only by the cries of the patient for relief, but also by the tendency to a return of the gastric irritation and the liability to gangrene. For facility of description, I shall divide the remedies, which are employed for this purpose, into 1st Cathartics, 2^d those which are given per anum and 3^d external applications.

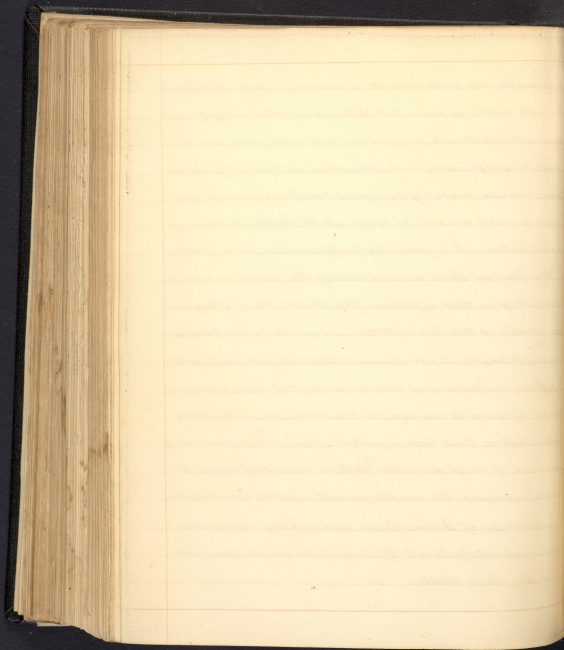
Cathartics. In treating of these articles in the disease under consideration, it is difficult to say which one has the strongest claims to our attention. In one case, we find that the most drastic purgatives are requisite, while in another, which in appearance, is precisely similar the mildest laxatives are far superior in efficacy. But as I have had reason to prefer those which are not of a very active nature, I will commence with them.

Castor Oil, is, perhaps, oftener than any other medicine used in this case. But to derive any advantage from it, we must be careful to select that which is least disagreeable to the patient; and to give it in small and



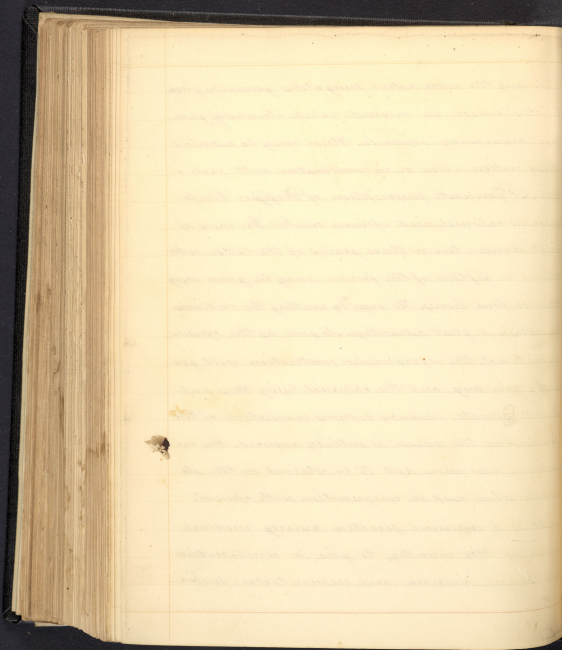
frequently repeated doses. It is usually taken, either alone, or with water or wine, but I think, a better way of administering it, is to pour it on hot coffee, and drink as soon as sufficiently cool. The olive oil being less offensive, would probably be found beneficial, when the oleum ricini cannot be taken. As the latter however is more active, it is generally preferred, when admissible.

The Neutral Salts are also among the most valuable cathartics in this affection. The Sulphate of Magnesia, which is the best of these, is said to be particularly applicable, to all diseases which are attended with gastric irritation, so much so, that it has frequently been known to remain in the stomach, after every other article had been rejected. Almost the same may be said of what are called "Patent Laidite Powders". I have witnessed the employment of this combination in one case of Delirious Colic and in this it evinced its superiority to all the remedies which had previously been tried.



Among the more active purgatives generally given in this disease, are calomel, jalap, aloe, barba, gamboge, scammony, senna &c. These may be administered, either alone or in combination with each other. A favorite prescription of Professor Chapman, is calomel and opium united. In cases of great danger, two or three grains of the latter, with twelve or fifteen of the former, may be given every three or four hours. He says, by uniting the medicines, we obtain a great advantage. As soon as the opium begins to act, the spasmodic contraction will generally give way, and the calomel being thus enabled to operate, produces copious evacuations of the bowels, and the disease is entirely removed. The calomel is also more apt to be retained in the stomach, when used in conjunction with opium.

It is a common practice among medical men of the country, to give a combination of Senna, marina and emor tartar, prepa-

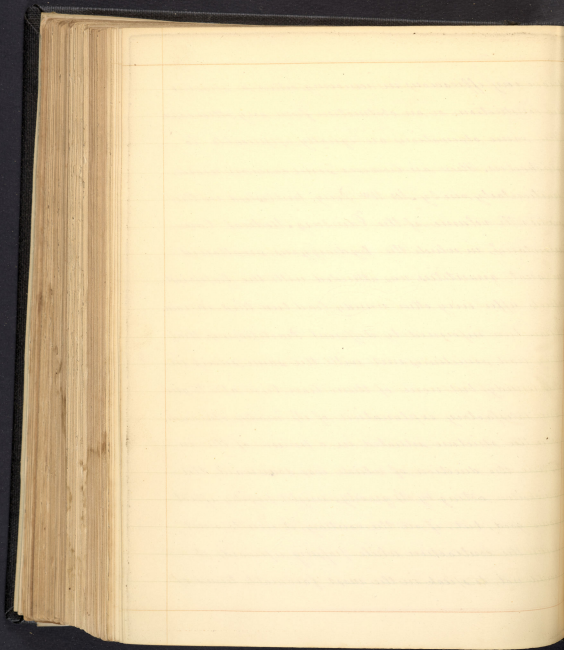


rid, as follows. R^y - Gummae Tol. Ziv.
Susp. Sait. Pol. 3ij
Manna 3ij
Aq. Calid. li
St. Infus.

Of this, a wine glassfull may be given every ten or fifteen minutes. This very often proves successful as does also, the *Juglans cathartica*, either alone, or mixed with the proto chloride of Mercury. There are other cathartics which may be employed in this affection, but I believe, I have enumerated the most important.

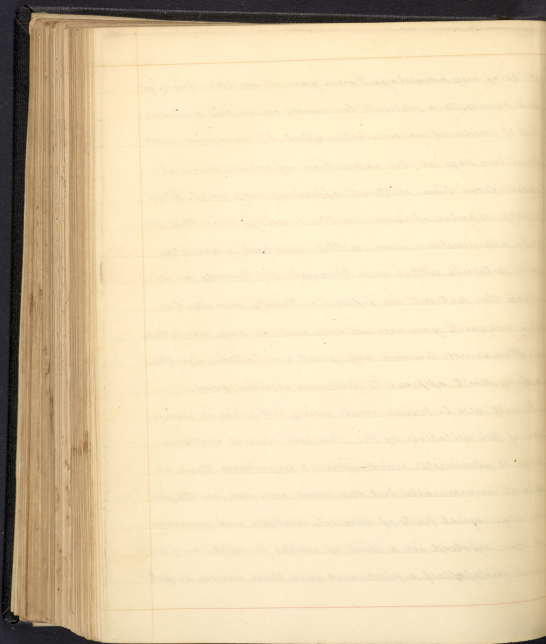
Some Practitioners have recommended the swallowing of leaden bullets, on the supposition, that by their weight they would force themselves through the contracted part of the intestine, but these seem much more likely to create, than to remove an obstruction. It appears to me, impossible that they can, act by their gravity, because the intestines do not lie in a straight line from the pylorus to the anus, and though this were actually the case, we cannot suppose that the weight of a bullet as large as a man could swallow, would

prove any efficacy in removing either a spasmodic contraction, or an obstruction from any other cause. The same observations are equally applicable to quicksilver. There are however some cases on record, particularly one by Mr Drury, published in the sixth volume of the Edinburgh Medical Commentaries, in which the hydragyrus, swallowed in great quantities was attended with the happiest effects after every other remedy had been tried in vain. I have been informed by different Practitioners, that they had sometimes met with the same success in this remedy, but none of them have been able to give any satisfactory explanation of its *modus operandi*. Were the stricture situated in a portion of the intestine, the direction of which was downward, the quicksilver acting by its gravity, might possibly effect some good, but, if on the contrary, it were to meet with the contraction while passing upwards, it could not, to speak in the most favourable terms of

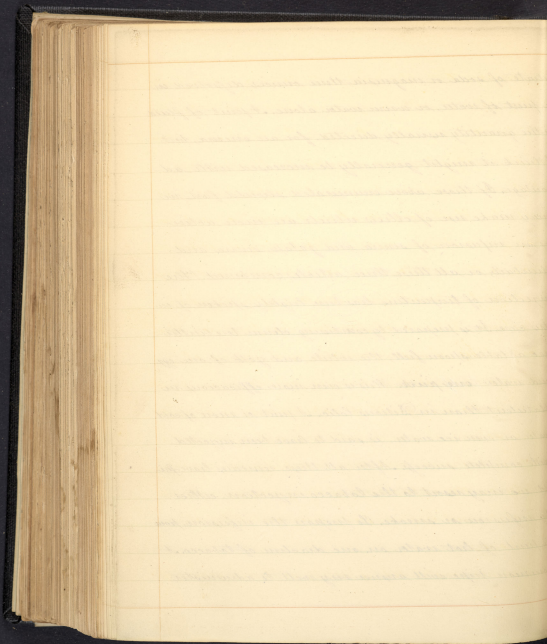


it be of any advantage. I once gave it, in the dose of six ounces, to a patient labouring under this disease, but it produced no remarkable effect. It remained with him two days, at the expiration of which time it came from him, without affording any relief. It is a very popular opinion in the country, that this article administered even in the smallest quantity, will certainly either run through the bowels, or destroy the patient in fifteen or twenty minutes. On this account you can seldom induce any one to take it. This is not, however, any great misfortune, for the remedy does not appear to promise much good.

It will also be proper, while using cathartics, or even before, if the irritation of the stomach should continue long, to administer mild opulent injections. These are almost innumerable, but the most common are the following: equal parts of olive oil, molasses and miniate of soda dissolved in a pint of water or milk, half a pint, molasses half a pint, and lard three ounces, or sub

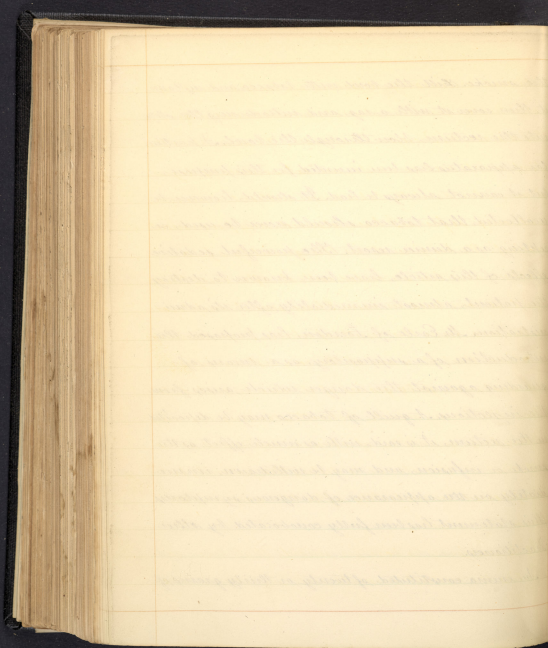


sulphate of soda or magnesia, then curries dissolved in
a pint of water, or warm water alone. A pint of fluid
is the quantity usually directed for an enema, but
I think it might generally be increased with ad-
vantage. If those above enumerated should fail, we
may make use of others which are more active,
as an infusion of senna and jalap, senna and
rhubarb, or all these three articles combined. The
injection of turpentine has been highly spoken of in
this case. It is prepared by combining clove tea with
one a table spoon full, the white and yolk of one egg
and water one pint. This is even more efficacious in
Catarrh than in Bilious Colic. A pint or more of cold
water or even ice water, is said to have been injected
with complete success. After all these remedies have fail-
ed, we may resort to the tobacco injection, either
by infusion or smoke. To prepare the infusion, pour
a pint of hot water on one drachm of tobacco. A
common pipe will answer very well to administer.



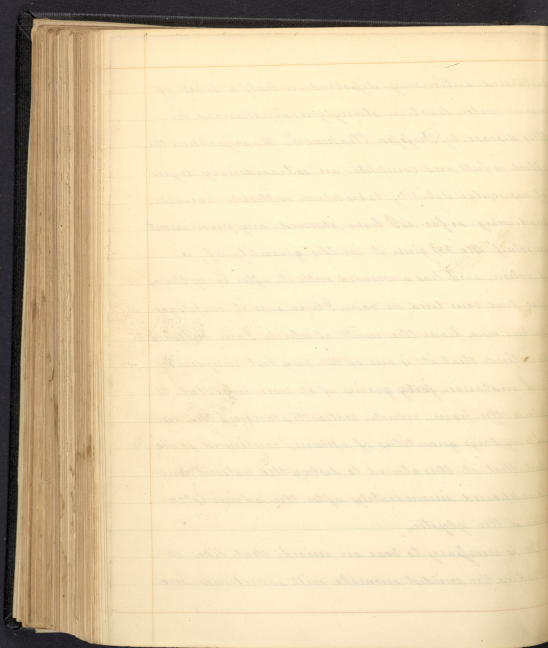
the smoke. Fill the bowl with tobacco, and inflame it, then cover it with a rag, and introducing the stem into the rectum, blow through the bowl. A particular apparatus has been invented for this purpose, but it cannot always be had. It should, however, be recollected, that tobacco should never be used, excepting as a dernier resort. The powerful sedative effects of this article, have been known to destroy the patient, almost immediately after its administration. Mr. Earle of London, has proposed the introduction of a suppository, as a means of guarding against the danger which arises from the injections. A quill of tobacco may be deposited in the rectum, it is said, with as much effect, as the smoke or infusion, and may be withdrawn, immediately on the appearance of dangerous symptoms. This statement has been fully corroborated by other Practitioners.

An enema constituted of twenty or thirty grains of



tartarized antimony, dissolved in half a pint of warm water, has been strongly recommended in this disease, by "Professor Chapman". He says, "When the effect is full and complete, an extraordinary degree of muscular debility takes place, without, however, producing, so far as I have observed, any permanent mischief." He has given it in the quantity of a drachm, and has succeeded with it, after every thing else had been tried in vain. I have seen it employed in two cases, from the result of which, I am inclined to believe, that it is one of the very best remedies. In one instance, forty grains of it were injected, to relieve the pain, which, notwithstanding the use of very large quantities of opium, continued so violent, that it threatened to destroy the patient, but disappeared immediately after the administration of the glyster.

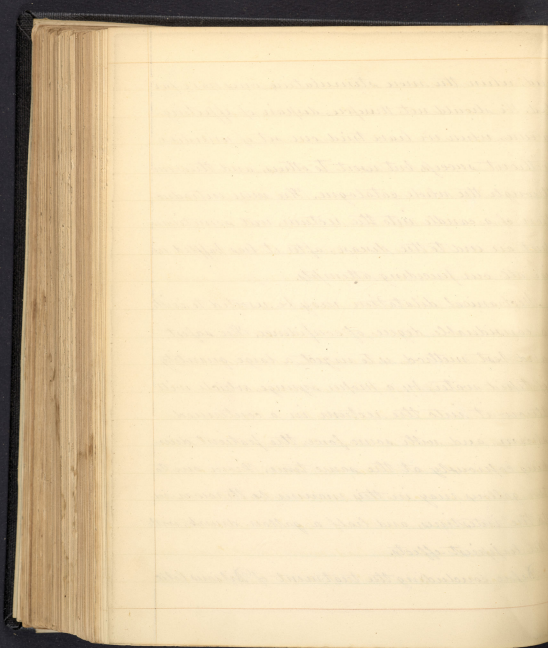
It is necessary to bear in mind that like cathartics the mildest enemata will sometimes suc-



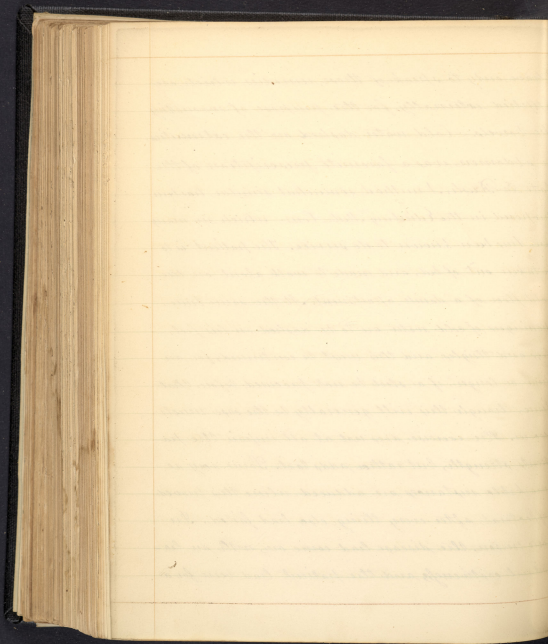
and, when the more stimulating ones have failed. We should not, therefore, despair of effecting a cure, when we have tried one set of remedies without success, but resort to others, and thus run through the whole catalogue. The mere introduction of a candle into the rectum, will sometimes put an end to the disease, after it has baffled us in all our preceding attempts.

Mechanical dilatation may be resorted to with a considerable degree of confidence. The safest and best method, is to inject a large quantity of tepid water, by a proper syringe, which will throw it into the rectum in a continued stream, and with some force, the patient drinking copiously at the same time. From one to two gallons may in this manner be thrown in to the intestines, and half a gallon drunk, with the happiest effects.

Before concluding the treatment of Bilious Colic

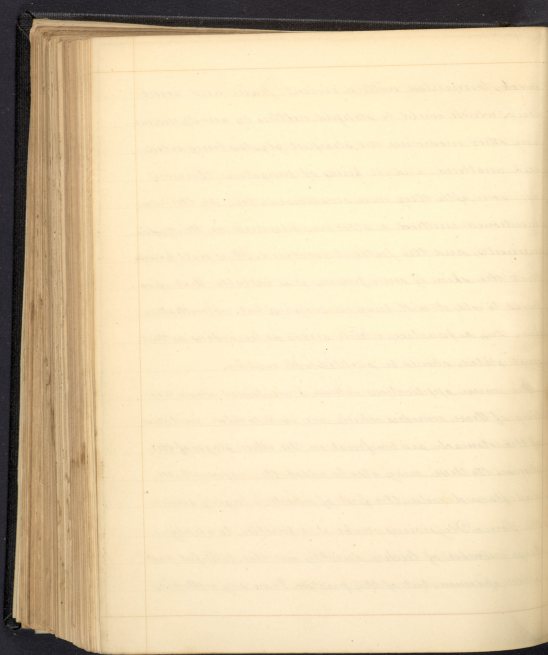


I leave only to speak of those remedies, which are
applied externally, for the purpose of evacuating
the bowels. Cold water dashed on the extremities
or abdomen, was a favourite prescription of the
late Dr. Keble. A method somewhat similar, has been
proposed in the Edinburg Med. Com. which in many
cases, has been known to do service. The patient is to
be taken out of bed, and made to walk about on the
cold floor of a damp apartment. At the same time,
pourings of cold water are to be dashed on his feet,
legs and thighs, and this must be continued, for an
hour or longer, if a stool be not procured before that
time, though this will generally be the case much
sooner. The exercise does not at all impair the pa-
tient's strength, but rather adds to it. Some very re-
markable instances are adduced, where this proved
effectual, after every thing else had failed. In
one person, the disease had come on, with an ac-
tual constipation, and the patient had been for a



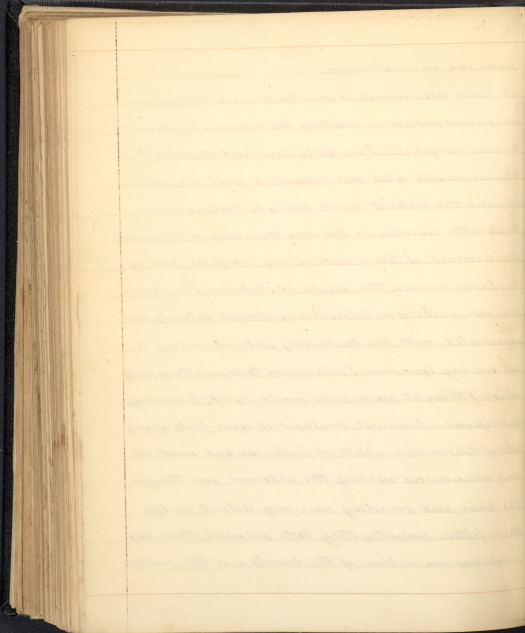
week, tormented with a violent pain and vomiting, which could be stopped, neither by anodynes, nor any other medicines, the sharpest glysters being retained unaltered, and all kinds of purgatives thrown up, soon after they were swallowed, but by the above mentioned method, a stool was procured in thirty five minutes, and the patient recovered. It is well known that the skin of some persons is so irritable that if exposed to cold it will bring on purging, but notwithstanding this, a practice which seems so hazardous as that just stated, should be adopted with caution.

The warm applications which I mentioned when treating of those remedies which are used to calm irritation of the stomach, are beneficial in the other stages of the disease. To these may also be added the vapour bath, and flannel roller, the first of which is highly advised by some Physicians as a practice, to apply a large number of leeches, directly over the painful part of the abdomen, but of this practice, I can say nothing,



from my own experience.

A blister large enough to cover the whole abdomen, will sometimes succeed in arresting this disease. Analogous to this are subspicities. I am fully persuaded that the Practitioner might often save himself a great deal of trouble, and the patient much pain, by making use of these latter remedies, in the very beginning of the disease. On account of the absence of my preceptor, soon after I commenced the study of medicine, I was called to a case of Bilious Colic. Being almost entirely unacquainted with the treatment, and not willing to expose my ignorance, I determined to do something from which I thought no injury would result. I accordingly prepared a liniment, composed of equal parts of spirits of turpentine, spirits of castor oil and sweet oil, and commenced rubbing the abdomen, and though the pain and vomiting were very violent, in less than fifteen minutes, they both subsided, there was a copious evacuation of the bowels, and the patient



was uttered. I have resorted to the same practice, in
two or three cases since, and although the benefit
was not so great as in that just stated, still the
pain and irritation were so completely calmed,
that there was no difficulty in procuring the op-
eration of a cathartic.

Should all the remedies which I have enumerated,
fail, we have still one resort. Mercury, urged to Sal-
ivation, will frequently snatch the Patient from the
apparent grasp of death. Much might be said, of the
utility of this medicine in Colic, but to ensure its
employment, it is necessary to mention only, that
among its advocates are Physick and Chapman.

